

CHAPTER 17 – MONUMENTS

Code References:

Subdivision Map Act Sections 66495 - 66498

Professional Land Surveyors Act Sections 8771 and 8772

Los Angeles County Code - Title 21 Chapter 21.20

The following practices, procedures, policies and standard language, as appropriate shall be used for all monumentation required for subdivision maps processed by Land Development Division in the unincorporated area of Los Angeles County and all contract cities.

17.1 Boundary Monuments

Each final tract map or parcel map shall show durable monuments found or set at or near each boundary corner and at intermediate points, approximately 1,000 feet apart, or at such lesser distances as may be made necessary by topography or culture to insure accuracy in the reestablishment of any point or line without unreasonable difficulty. The precise position and the character of each such monument shall be shown on such map. Such durable monument shall not be less substantial than an iron pipe of a two-inch outside diameter (O.D.), not less than two and one-half feet in length, with plug and tack, and set at least two feet into the ground, or of such other character and stability as may be approved by the county engineer. For the purpose of this Title 21, a lead and tack set in permanent concrete or masonry shall be considered as a durable monument. The approximate elevation of the top of each such monument with respect to the surface of the ground shall be shown on said map.

17.1.1 Acceptable boundary monuments are:

- a. 2-inch outside diameter iron pipe of 30 inches in length with (cement) plug, (brass) tack, and (brass) tag and with the depth of the top of the pipe relative to the ground surface properly noted.
- b. Lead, (brass) tack, and (brass) tag.
- c. 6-inch spike and stamped washer

17.1.2 Not acceptable boundary monuments are:

Pipes of less than 2-inch (O.D.) and less than 30 inches long, concrete nails, magnetized nails, small spikes, spikes less than 6 inches long, PK nails, wood stakes, chiseled crosses, rebar, punch marks on manhole rims or covers, and any monument set in a vertical surface are NOT acceptable as boundary monuments.

17.1.3 Other types of boundary monuments that may be acceptable:

Interior lot or parcel boundary monuments, if required, may be a less substantial monument and are at the authority and discretion of the County Surveyor or City

Engineer where applicable. If other monument types are found and used, their acceptability is at the discretion of the County Surveyor or City Engineer where applicable.

17.2 Boundary Monument Procedures

Every **“SET”** boundary monument must be of acceptable durability with an engraved #, stamped washer, or brass tag, and be set at a boundary corner (first preferred), be within 5 feet of the boundary corner on the map's boundary (second preferred), or be within 5 feet of the boundary corner along a prolongation of a line in the map's boundary (last preferred).

Every **“FOUND”** boundary monument must have a recorded/filed reference and be **“ACCEPTED AS (THE SPECIFIC RECORD BOUNDARY CORNER BEING PERPETUATED)”**. In all cases where any type of monument is found at a boundary corner, its complete, existing details and recorded/filed references shall be noted in the monument note on the map. When the found monument does not have a tag or a number, does not have a reference, or appears disturbed or damaged, those facts shall be duly noted in the monument note on the map. If a found boundary corner monument located at the record corner is acceptable in all ways except it is missing a tag, the monument shall be retagged, replaced, or rehabilitated as necessary until it is acceptable in all required details. If a found monument at a record point is acceptable in all ways except it does not have a reference, the monument shall be retagged, replaced, or rehabilitated as necessary until it is acceptable in all required details. All **“NO REFERENCE”** monuments, tagged or not, shall meet the requirements of the County Code and shall, by the recording of the map, be brought into the recorded reference 'world' for recorded perpetuation of its current location and for proper use by others. Every monument note of a found monument shall state specifically the type of monument found and the type of monument set. Where a firmly set and found spike and washer is located at a boundary corner, has **“NO REFERENCE”** and/or **“NO TAG”**, cannot be removed without causing collateral damage to the immediate surface area, and is noted on the map as **“ACCEPTED AS (THE SPECIFIC RECORD BOUNDARY CORNER BEING PERPETUATED)”**, the spike and washer may be considered acceptable if another acceptable monument is set using the same guidelines as stated above for **“SET”** monuments and is approved by the County Surveyor.

Every **“ESTABLISHED”** boundary corner must be **“ACCEPTED AS (THE SPECIFIC RECORD BOUNDARY CORNER BEING PERPETUATED)”**. If the boundary corner falls on a non-permanent structure, an acceptable monument shall be set along the boundary in both directions from the established boundary corner using the same guidelines as stated above for **“SET”** monuments. Locations greater than 5 feet from the boundary corner or conditions requiring alternate settings shall be at the discretion and authority of the County Surveyor or City Engineer where applicable.

17.3 Street Centerline Monuments

Centerline monuments shall be set to mark the intersections of streets, intersections of streets with the tract boundary, or to mark either the beginning and end or the points of

intersection of tangents thereof, or other intermediate points. Each such monument shall be not less durable and substantial than:

17.3.1 Acceptable street centerline monuments are:

- a. 6-inch spike and stamped washer
- b. Lead, (brass) tack, and (brass) tag
- d. 2-inch (O.D.) iron pipe of 30 inches in length with (cement) plug, (brass) tack, and (brass) tag with the depth of the top of the pipe relative to the ground surface properly noted.

17.3.2 Not acceptable street centerline monuments:

Concrete nails, magnetized nails, small spikes, spikes less than 6 inches long, PK nails, wood stakes, chiseled crosses, rebar, punch marks on manhole rims or covers, and any monument set in a vertical surface are NOT acceptable as centerline monuments and centerline tie monuments.

17.3.3 Other types of street centerline monuments that may be acceptable:

If other monument types are found and used, their acceptability is at the discretion of the County Surveyor or City Engineer where applicable.

17.4 Centerline intersection monuments – Notes to county surveyor

- a. For each centerline intersection monument set, the engineer or surveyor under whose supervision the survey has been made shall furnish to the county surveyor a set of notes showing clearly the ties between such monument and a sufficient number (normally four) of durable distinctive reference points or monuments.
- b. Such reference points or monuments may be leads and tacks in sidewalks, or two-inch by two-inch stakes set back of the curbline and below the surface of the ground, or such substitute therefor as appears to be not more likely to be disturbed.
- c. Such set of notes shall be of such quality, form and completeness, and shall be on paper of such quality and size, as may be necessary to conform to the standardized office records of the county surveyor. All such notes shall be indexed and filed by the county surveyor as a part of the permanent public records of this office.

17.5 Street Centerline Monument Procedures

Every **“SET”** centerline intersection monument must be of acceptable durability with an engraved number, stamped washer, or brass tag, and have a minimum of 4 tagged, tangent ties (preferred) or a minimum of 3 tagged, swing (or pull) ties (acceptable in certain situations) set outside of the vehicle traveled portions of the street.

Every **“FOUND”** centerline intersection monument must have a recorded/filed reference and be **“ACCEPTED AS CENTERLINE INTERSECTION”**. In all cases where ties exist

and are shown on a recorded/filed reference (i.e. a County Engineer Field Book), the ties shall be recovered and measured to support the centerline intersection's establishment. If only two or three acceptable ties exist from a set of four, the monument note shall duly state that fact and shall state that additional tangent ties are being set thereby leaving 4 tangent ties at the intersection. If all information on the tie note matches the current surveyed information, the monument note on the map shall cite "FITS ALL TIES PER (CITE REFERENCE)". Every "FOUND" centerline intersection monument will be required to have a minimum of 4, found or set, tangent ties (preferred) or a minimum of 3 tagged, swing (or pull) ties (acceptable in certain situations) shown on a recorded/filed reference. If any centerline monument or centerline tie monument is unacceptable in any detail, it shall be retagged, reset, replaced, or rehabilitated as required. New ties shall be set or existing ties shall be re-measured. Any changes to the information shown on an existing tie note reference shall be resolved by the filing of a new centerline tie note. Where a solidly set spike and washer with "NO REFERENCE" and/or "NO TAG" cannot be removed without causing collateral damage to the roadbed and is "ACCEPTED AS CENTERLINE INTERSECTION", the spike and washer may be considered acceptable if a minimum of 4 tagged, tangent ties (preferred) or a minimum of 3 tagged, swing (or pull) ties (acceptable in certain situations) are set, retagged, or rehabilitated by the current surveyor. The "NO REFERENCE" and "NO TAG" spike and washer shall have a new centerline tie note filed showing a minimum of 4 tagged, tangent ties (preferred) or a minimum of 3 tagged, swing (or pull) ties (acceptable in certain situations) with the tag of the current surveyor.

Every "**ESTABLISHED**" centerline intersection must be "ACCEPTED AS CENTERLINE INTERSECTION", will be required to have a tagged monument set that is of acceptable durability, and must have a minimum of 4 found, tagged, tangent ties (preferred) or a minimum of 3 tagged, swing (or pull) ties (acceptable in certain situations) set or found on a recorded/filed reference. If the centerline intersection falls on a manhole cover, please see (*) below. All "ESTABLISHED" centerline intersections shall meet all of the applicable requirements for "FOUND" centerline intersection monuments noted above.

- (*) Centerline intersections falling on manhole covers **cannot** be established from punch marks on manhole rims, must have 4 found tangent ties (preferred) per a recorded or filed reference or 3 or more swing (or pull) ties (acceptable in certain situations) per a recorded or filed reference, and may be established from 4 found spreaders (or straddlers) per a recorded or filed reference only if 4 tagged tangent ties are set outside of the vehicle traveled portions of the street such as 'TOP OF CURB', 'ON SIDEWALK', or 'BACK OF WALK'. Centerline intersections on manhole covers shall meet all applicable requirements for "FOUND" and "ESTABLISHED" centerline intersection monuments noted above.

In all cases where any centerline monument or centerline tie monument must be set, reset, retagged, or rehabilitated in any manner, or where any measurement or detail on a filed tie note changes, the surveyor shall file a new, original tie note with the County Surveyor for field inspection (where applicable) and, after passing inspection, shall file the original tie note with the County Surveyor or City Engineer (where applicable). All "NO REFERENCE" centerline monuments, tagged or not, shall meet the requirements

of the County Code and shall, by the recording of the map, be brought into the recorded reference 'world' for recorded perpetuation of its current record location and for proper use by others.

17.6 Identification marks on monuments

All monuments found or set as required herein shall be permanently and visibly marked or tagged with the registration or license number of the engineer or surveyor under whose supervision the survey was made.

17.7 Boundary Monuments: Time for Setting and Deferment Conditions

All boundary monuments shall be set prior to filing of the final tract map or parcel map unless extensive grading operations or improvement work makes it impractical to set monuments. In the event any of the boundary monuments required are to be set subsequent to filing of the parcel map or final map, the engineer or surveyor making the survey shall furnish evidence acceptable to the Director of Public Works at the time the map is submitted for checking. Interior street centerline monuments may be set subsequent to filing of the map. The map shall show which monuments are in place and are to be set. Prior to approval of the final map by the Board of Supervisors or of a parcel map by the advisory agency, the subdivider shall submit a written agreement and a surety bond in which he or she agrees that the monuments so deferred will be set within a specified time, and that the notes required in Section 21.20.040 of Title 21 of LA County Code will be furnished within a specified time.

17.8 Inspection and Approval of Monuments

All monuments within County unincorporated areas shall be subject to inspection and approval of the Department of Public Works. Inspection may be done by either Land Development Division or Survey/Mapping & Property Management Division. Those monuments within contract cities may be subject to inspection and approval depending upon the City's agreement with the County.

17.9 Survey Monument Survey Monument Faithful Performance Security

The survey monument faithful performance security guarantees the setting of survey monuments which are not required to be set prior to filing of a tract map or surveyed parcel map. The amount of security required to secure the setting of the deferred monuments is determined by an estimate provided by the licensed land surveyor of record. Section 66497 of the Subdivision Map Act allows payment to the engineer or surveyor from the deposit in the event that no evidence of payment is provided by the subdivider. Therefore, it is in the best interest of each engineer or surveyor to insure that the faithful performance security accurately reflects his estimated costs for setting the monuments. In the event that the engineer or surveyor is not paid for his work and an action against the deposit is necessary, it will be impossible to recover an amount in excess of the faithful performance security. As in the past, agreement forms are available at the Land Development Division public counter. Faithful performance security must be in cash. Negotiable bonds, savings and loan shares, instruments of credit and surety bonds are not acceptable.

17.10 Deferred Monument Security Release

In the event that the monumentation for a final map is incomplete a letter will be sent to the surveyor and/or subdivider/ principal 60 days prior to the two year expiration date. At this time said principal will have the option of having the required work completed as scheduled or request by letter a one year extension accompanied with a \$459.00 processing fee. Upon completion of said work the principal must present evidence of payment to the surveyor. Once said evidence is received the security deposited with this office will be released. However, if evidence of payment is not received the surveyor can request that payment for work done, be paid from said deposit. This request must be done by letter accompanied with a cost breakdown of all work done (see sample letters).

SAMPLE - Paid Letter for the Setting of Deferred Monuments

(Date)

County of Los Angeles
Department of Public Works
Land Development Division, 3rd floor
900 South Fremont Avenue
Alhambra, California 91803-1331

Re: Monument Security
Tract No./Parcel Map No.

We hereby certify that the centerline monuments and survey notes for Tract No. /Parcel Map No. _____ have been submitted and accepted by the County and that satisfactory financial arrangements have been made with this office. We therefore request that the monument security be released.

Very truly yours,

cc: (Principal)

SAMPLE - Not Paid Letter for the Setting of Deferred Monuments

(Date)

County of Los Angeles
Department of Public Works
Land Development Division, 3rd floor
900 South Fremont Avenue
Alhambra, California 918033-1331

Re: Monument Security
Tract No. /Parcel Map No.

We have not been paid for performing the monumentation work for the subject division of land. In accordance with the Subdivision Map Act and the monumentation agreement, we hereby request that your office release the monumentation security to us up to the amount shown on the attached list of itemized costs.

Very truly yours,

cc: (Principal)

(Date)

County Engineer
Subdivision Section
Room 508
550 South Vermont Avenue
Los Angeles, California 90020

Re: Survey Monument Security
Tract No. _____/Parcel Map No. _____
Section 66497 Subdivision Map Act

Gentlemen:

The following is an itemized listing of our costs in setting survey monuments for the subject division of land.

Survey (2 man crew) (Date)

____ hrs. @ \$ _____ per hr. \$ _____

Office Drafting

____ hrs. @ \$ _____ per hr. \$ _____

Research prints

\$ _____

Survey (2 man crew) (Date)

____ hrs. @ \$ _____ per hr. \$ _____

Copies and tie notes

\$ _____

Total costs

\$ _____

\$ _____

Very truly yours,